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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/427,675 10/27/99 JACQUINOT

E JACQUINOT=7

001444 IM52/0214
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EXAMINER

DEO, D

ART UNIT	PAPER NUMBER
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1765

DATE MAILED:

02/14/01

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No.	Applicant(s)	
	09/427,675	JACQUINOT ET AL.	
	Examiner	Art Unit	
	DuyVu n Deo	1765	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 13-16 is/are objected to.
- 8) ☒ Claims 1-12 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- | | |
|---|--|
| 15) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 18) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 16) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 19) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 17) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4</u> . | 20) <input type="checkbox"/> Other: _____ |

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Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-12, drawn to an abrasive composition, classified in class 51, subclass 308.
- II. Claims 13-16, drawn to a CMP method, classified in class 438, subclass 693.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the process for using the product as claimed can be practiced with another materially different product, such as an alumina polish or an alkaline slurry. In addition, the product as claimed can be used in a materially different process of using that product, such as a method wherein the abrasive composition is not impregnated on the support.

Because these inventions are distinct for the reasons given above and (1) have acquired a separate status in the art as shown by their different classification, (2) the search required for Group I is not required for Group II, and (3) have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Sheridan Neimark on December 12, 2000 a provisional election was made with traverse to prosecute the invention of Group II, claims 13-16. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-

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12 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

Examiner
Marcheschi

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacquinet et al. (US 6,043,159), Robinson et al. (US 5,733,176), and Chen Shyan Shen (EP 0192047).

Jacquinet teaches a polishing an integrated circuit in which isolation layer, including silicon oxide and silicon nitride, is polished by an abrasive composition which comprises an aqueous acid suspension of individualized colloidal silica particles not linked to each other by siloxane bonds (col. 2, line39-65; col. 4, line 6-10). Unlike claimed invention he doesn't describe that the abrasive is impregnated within a support. Robinson teaches in the polishing process of insulating material including silicon oxide and silicon nitride, the abrasive can be either in the slurry or alternately in the pad (claimed support) (col. 1, line 15-45). Therefore, it would be obvious at the time of the invention for one skill in the art that using the abrasive in the slurry is equivalent as using the pad. Either way of using the abrasive would polish the insulating material with an anticipation of an expected result.

Unlike claimed invention, above prior art doesn't describe having a surfactant in the support. Chen Shyan Shen teaches a method of forming fixed abrasive grinding media or fixed abrasive pad wherein a surfactant is added to the fixed abrasive pad to enhance the properties of the binder (col 5, 3rd paragraph). It would have been obvious for one skill in the art at the time of

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the invention in light of Chen Shyan Shen to add a surfactant in order to enhance the binder's properties.

Even though prior art above doesn't describe polishing a polymer having a low dielectric constant. However, it would be obvious for one skill in the art to apply above abrasive pad above to a process where a polymer having a low dielectric constant is used and polished, since process above is used to polish various dielectric layers.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DuyVu n Deo whose telephone number is 703-305-0515.

DVD

February 12, 2001


BENJAMIN L. UTECH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700